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QUALCOMM, INC 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			STEIN, JULIE E	
			ART UNIT	PAPER NUMBER
			2617	
DATE MAILED: 05/08/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/648,623	JHA ET AL.	
	Examiner	Art Unit	
	Julie E. Stein, Esq.	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 40-66 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 32 and 36 is/are allowed.
- 6) ☒ Claim(s) 1-31, 33-35 and 37-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Election/Restrictions

2. Applicant's election without traverse of claims 1-39 in the reply filed on January 26, 2006 is acknowledged.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 11 recites the limitation "location services characteristic" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent,

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except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-4, 8-11, and 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,912,395 to Benes et al.

Benes discloses all the elements of independent claim 1, including, a location services apparatus for providing location services to a mobile station comprising:

a) a CPU (Figure 1, element 116, PDE);

b) a memory (Figure 1, element 120, DB) coupled to the CPU (Figure 1), wherein the memory stores data comprising location services equipment identity information and a plurality of location services equipment identifiers (column 4, line 30 to column 5, line 13, describes the database 120 storing the id of each mobile station as well as location capability of each mobile station and various other parameters, such as statistical information related to each mobile station); and

c) an equipment identity processor (Figure 1, element 118, processor) coupled to the CPU and to the memory (Figure 1), wherein the equipment identity processor is configured to receive a location services equipment identifier of the plurality (column 5, lines 54 to 55) and to retrieve information comprising a location services equipment identity corresponding to the identifier (column 5, lines 54 to 60), and wherein the equipment identity processor selectively generates location services control signals that control operation of the CPU responsive to an identified characteristic of the location services equipment identity (Figure 2 and column 5, line 54 to column 7, line 14).

Benes also discloses all the elements of claim 2, including wherein the location services equipment identity information and the location services equipment identifiers are associated with and correspond to a mobile station. See, column 3, lines 38 to 40 and column 4, lines 32 to 34.

Benes also discloses all the elements of claim 3, including the apparatus further comprising an equipment identity server (Figure 4, element 114, MPC), wherein the equipment identity server is configured to provide the characteristic of the mobile station to the equipment identity processor (column 5, lines 52 to 53).

Benes also discloses all the elements of claim 4, including wherein the characteristic includes a manufacturer identifier of the mobile station. See column 3, lines 38 to 40.

Benes also discloses all the elements of claim 8, including wherein the location services control signals cause the CPU to store information in the memory. See column 5, line 40 to column 7, line 14.

The rejection of independent claim 1 and dependent claims 2-4 and 8 are hereby incorporated. Benes discloses all the elements of independent claim 9, including a communication system for providing location services to a mobile station, the system comprising:

- a) a base station system (Figure 1, element 104); and
- b) a location server (Figure 1, elements 114, 116, 118, 120) coupled with the base station system (Figure 1), wherein the location server is configured to selectively generate location services control signals to control operation of the system (Figure 2

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and column 5, line 54 to column 7, line 14) in response to an equipment characteristic of the mobile station to which location services are to be provided (column 3, lines 38 to 40 and column 4, lines 32 to 34).

The rejection of independent claims 1 and 9, and dependent claims 2-4 and 8 are hereby incorporated. Benes discloses all the elements of independent claim 10, including a method of providing location services to a mobile station, the method comprising the steps of:

a) receiving a request for location services to be provided to the mobile station (Figure 3 and column 7, lines 35 to 43); and

b) identifying an equipment characteristic of the mobile station in response to the request (column 7, lines 35 to 43), wherein the equipment characteristic comprises one or more of the following characteristics: a manufacturer, a model, a bug, an error code (column 7, lines 35 to 41);

c) selectively generating location services control signals based at least in part on the equipment characteristic identified in step b) (column 7, lines 44 to 61 and Figure 3).

Benes discloses all the elements of dependent claim 11, including the step of storing data based at least in part on the location services characteristic of the mobile station. (The Examiner is interpreting this claim to mean the same as the "equipment" characteristic of the preceding claim and to simply not to have been amended correctly). See column 7, lines 44 to 49.

Benes discloses all the elements of independent claim 14, including a communication system comprising:

- a) a means for providing location services to a mobile station (Figure 1 and column 3, line 32 to column 5, line 39); and
- b) a means for controlling the means for providing location services based at least in part on an identified equipment characteristic of the mobile station (Figure 2 and column 5, line 40 to column 7, line 14).

Benes discloses all the elements of claim 15, including a means for identifying a mobile station to which location services are to be provided. See column 3, lines 38 to 40 and column 4, lines 32 to 34.

Benes discloses all the elements of claim 16, including a means for storing data based at least in part on the identified location services characteristic of the mobile station. See column 5, line 40 to column 7, line 14.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benes.

Benes teaches all the elements of dependent claim 5, except explicitly wherein the characteristic includes a model identifier of the mobile station. However, Benes does teach an Id number that is an ESN or an IMSI. See column 3, lines 37 to 40. From this information, a mobile phones manufacturer (see column 7, lines 35 to 47) and the Examiner is taking Official Notice, the model type can be determined. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine a model identifier or type from the equipment characteristic/id of the mobile phone because Benes teaches that this information is imbedded in the Id/serial number. See column 7, lines 35 to 47.

11. Claims 6-7 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benes as applied to claims 2 and 10 above, and further in view of U.S. Patent No. 6,219,557 to Havinis.

Benes teaches all the elements of claims 6-7 and 12-13, except wherein the characteristic includes an error code associated with the mobile station and wherein the location services control signals compensate for an error associated with the error code.

However, Havinis teaches a system and method for locating a mobile device in which if a mobile device is not registered with a given HLR or the routing information is not available, a location request will be answered with a rejection message (an error code). See column 5, lines 18 to 30. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that a characteristic of the mobile station could be an error code or message as taught by Havinis.

In addition, one of ordinary skill in the art would have known at the time the invention was made that if an error code was received, then the location services apparatus would compensate for the error code, for example in Havinis by retrying the location request by contacting another HLR or SGSN to determine where the mobile station was registered and the correct routing.

12. Claims 17-22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,650,902 to Richton in view of Zellner.

Richton teaches all the elements of independent claim 17, including a method of operating a location server (Figure 3), comprising the steps of: a) receiving a request for location services associated with a mobile station (column 2, lines 41 to 59); and c) storing at least one parameter based on the identified mobile station type (column 3, lines 8 to 28). However, Richton does not explicitly teach, b) identifying a mobile station type of the associated mobile station. But, Zellner teaches a location server, which receives identity information for mobile devices, including unique identification numbers, such as MINs and serial numbers or any other unique attributes of the wireless device. See column 2, lines 54 to 65 and column 4, lines 52 to 58. Therefore, it would have

been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the characteristic relating to the mobile station could be a manufacturer identifier or a model identifier because as taught by Zellner, it is well known for a location server to use a unique identifier to identify a mobile device. See *Id.*

Richton in view of Zellner also teach all the elements of claims 18-22, including receiving a request for location services associated with a mobile station includes receiving a mobile station type identifier, manufacturer identifier, a mobile station model identifier, a mobile station user identifier, a mobile subscriber identity, an electronic serial number, or manufacturer model. See, Zellner, column 2, lines 54 to 65 and column 4, lines 52 to 58. The Examiner takes Official Notice that all of the above listed identifiers are well known in the art and would be understood by one of ordinary skill in the art to be included in the “unique identification numbers” described in Zellner. In addition, these “mobile station type identifiers” could be determined from the serial number taught by Zellner.

Richton teaches all the steps of independent claim 24, including a method of operating a mobile switching center (Figure 2, element 220), comprising the steps of: a) receiving a request for location services associated with a mobile station (column 2, lines 41 to 59). However, Richton does not explicitly teach b) identifying a mobile station type of the associated mobile station; and c) communicating the request for location services and the mobile station type to a location server. But, Zellner teaches a location server, which receives identity information for mobile devices, including unique identification numbers, such as MINs and serial numbers or any other unique attributes

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of the wireless device. See column 2, lines 54 to 65 and column 4, lines 52 to 58.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that a type of mobile station, as taught by Zellner, would be used by a location server such as that taught by Richton to identify a specific mobile unit and this mobile type would be communicated to the location server along with the location request in order to identify the specific mobile unit making the request as taught by Richton (column 3, lines 8 to 28).

13. Claims 33-35 and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application No. 2003/0186710 to Muhonen et al. in view of Zellner.

Muhonen teaches all the steps of claim 33, including a method of operating a location server (paragraph 7), comprising: a) receiving a request for location services associated with a mobile station (paragraph 41). However, Muhonen does not explicitly teach b) identifying a mobile station type of the associated mobile station; and c) storing and retrieving data associated with and corresponding to a performance parameter of the associated mobile station based on the identified mobile station type.

However, Muhonen does teach that a client (8), which may be a mobile station (paragraph 45) may request location services regarding mobile stations, these mobile stations having profiles stored in a service database within the location server node and that the accuracy of a location request may be determined by the quality of service parameters included in the location request. See paragraphs 45 to 50. In addition, Zellner teaches a location server, which receives identity information for mobile devices,

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including unique identification numbers, such as MINs and serial numbers or any other unique attributes of the wireless device. See column 2, lines 54 to 65 and column 4, lines 52 to 58.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Muhonen to include identifying a mobile station type associated with the mobile station as taught by Zellner so as to uniquely identify each mobile station (Id.) and then to store and retrieve data associated with and corresponding to a performance parameter, such as QoS as taught by Muhonen in paragraph 43.

Muhonen in view of Zellner teaches all the steps of claim 34, including the step of providing location services using location services control signals based at least in part on the performance parameter. See, Muhonen, paragraph 43.

Muhonen in view of Zellner teaches all the steps of claim 35, including wherein the step of providing location services includes using location services control signals based at least in part on performance parameter information relating to one or more of the following: additional information associated with and corresponding to the mobile station type, preferred operating parameters associated with the mobile station type. See, Muhonen, paragraph 43 and Zellner, column 2, lines 54 to 65 and column 4, lines 52 to 58.

The rejection of claim 33 is hereby incorporated. Muhonen in view of Zellner teach all the steps of independent claim 37. Claim 37 is in essence the same method recited in claim 33, except that a plurality of mobile stations is recited. Muhonen

teaches more than one mobile station and location requests and corresponding performance parameter determination. See paragraphs 41 to 43.

The rejections of claims 33 and 37 are hereby incorporated. Muhonen in view of Zellner teach all the steps of independent claim 38. Claim 38 is in essence the same method recited in claim 33 and 37, except the method relates to a communication system, including a plurality of mobile stations. Muhonen teaches a communication system including a plurality of mobile stations. See Figure 1.

Muhonen in view of Zellner teaches all the steps of claim 39, including receiving requests for location services from a plurality of mobile stations; and providing the requested location services. See, Muhonen, paragraphs 45 to 46.

14. Claims 25-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richton et al. in view of Zellner as applied to claim 24 above and further in view of U.S. Patent No. 6,771,950 to Shupe.

Richton in view of Zellner teach all the steps of claim 25, including receiving a unique mobile equipment identifier from the mobile switching center. See, Zellner, column 2, lines 54 to 65 and column 4, lines 52 to 58. However, Richton in view of Zellner does not teach querying a database for the mobile station type with the unique mobile equipment identifier. However, Shupe does teach that it is well known to query a database, which includes information that correlates electronic serial numbers to specific mobile subscribers. See column 1, lines 61 to 67. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that if a mobile equipment identifier was received, a mobile station type could

be determined by querying a database, which correlated the equipment identifier with the mobile station type as generally taught by Shupe. *Id.*

Richton in view of Zellner and further in view of Shupe teach all the steps of claim 26, including receiving a mobile station user identifier from the mobile switching center; and querying a database for the mobile station type corresponding to and associated with the mobile station user identifier. See, Shupe, column 1, lines 61 to 67.

Richton in view of Zellner and further in view of Shupe teach all the steps of claim 27, including wherein the mobile station user identifier may include an international mobile subscriber identity or an electronic serial number. See, Zellner, column 2, lines 54 to 65 and column 4, lines 52 to 58.

Richton in view of Zellner and further in view of Shupe teach all the steps of claim 28, including receiving an international mobile equipment identifier from the mobile switching center; and querying an equipment identification server for a manufacturer identifier and model identifier based on the received international mobile equipment identifier. See, Shupe, column 1, lines 61 to 67.

Richton in view of Zellner and further in view of Shupe teach all the steps of claim 29, including wherein receiving a request for location services associated with a requesting mobile station includes receiving a unique mobile equipment identifier as part of the request for location services. See, Zellner, column 2, lines 54 to 65 and column 4, lines 52 to 58.

Richton in view of Zellner and further in view of Shupe teach all the steps of claim 30, including wherein the unique mobile equipment identifier may be received as an

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element in the standard location request message. See Richton, column 2, lines 41 to 58 and Zellner, column 2, lines 54 to 65 and column 4, lines 52 to 58.

Richton in view of Zellner and further in view of Shupe teach all the steps of claim 31, including wherein the unique mobile equipment identifier may be transmitted as an element in a proprietary message between the mobile switching center and the location server. The Examiner takes Official Notice that it is well known in the art to send encrypted/proprietary messages between nodes in a network. Therefore, one of ordinary skill in the art at the time the invention was made would have known that if, for example, the location server was to confirm whether a user was authorized, a proprietary message, including, for example, an encryption key, may be used to transmit messages between a mobile switching center and a location server.

15. Claims 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richton et al. in view of Zellner as applied to claim 17 above and further in view of U.S. Patent Application No. 2003/0186710 to Muhonen et al.

Richton in view of Zellner teach all the steps of claim 23, except the step of determining a performance parameter related to the request for location services. However, Muhonen teaches that the accuracy of a location request may be determined by the quality of service parameters included in the location request. See paragraph 43. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Richton in view of Zellner to include determining a performance parameter, such as QoS parameters, which may be included in the location request as taught by Muhonen. Id.

Response to Arguments

16. Applicant's arguments filed January 26, 2006 have been fully considered but they are not persuasive.

17. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

18. With regard to the rejection of claims 17 to 39, the main arguments are that the primary references cited do not teach "a mobile station type" and that Zellner as a secondary reference does not teach this concept either. In addition, even if this concept is taught, Zellner does not teach both "identifying" and "determining" "a mobile station type," as recited in claims 33, 37, and 38.

19. The Examiner agrees that Zellner is being cited for the concept of "mobile station type," however, as to the term distinction and whether Zellner teaches the concept, the Examiner submits that Zellner clearly teaches the identification of wireless devices by serial numbers (column 4, lines 52 to 56), which include information on model and manufacturer. Therefore, the Examiner submits that the Applicants arguments that the "mobile station type" recited in the claims is somehow different than that taught by the reference appears suspect as the dependent claims in fact claim that the mobile station type is a serial number, model, and manufacturer identifier.

20. As to claims 33, 37, and 38, as seen in the rejection above, Muhonen is cited in part as teaching the determination of the QoS of a location request as the performance parameter that is being determined and that Zellner is teaching the identification and storing of the mobile station type. Therefore, while Muhonen does not explicitly teach

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the determining, the rejection does indicate that Muhonen does teach the above and that it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Muhonen with Zellner to achieve the claimed invention.

21. Applicant is reminded that the statement of claims that stand rejected in the response filed January 26, 2006, does not represent all the claims. The only claims listed were the independent claims. The Examiner notes that some of the pending dependent claims stand rejected under additional references that were not addressed in the response.

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie E. Stein, Esq. whose telephone number is (571) 272-7897. The examiner can normally be reached on M-F (8:30 am-5:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JES



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SUPERVISORY PATENT EXAMINER